

PATENT COOPERATION TREATY

RECEIVED

OCT 26 2005

SCIENTIFIC-ATLANTA, INC.
LEGAL DEPARTMENT

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

SCIENTIFIC-ATLANTA, INC.
Intellectual Property Department
Attn. Lafferty, Wm. Brook
5030 Sugarloaf Parkway
Lawrenceville, GA 30044
UNITED STATES OF AMERICA

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

<p>Date of mailing (day/month/year) 18/10/2005</p>	
<p>Applicant's or agent's file reference F-8024-PC</p>	<p>FOR FURTHER ACTION See paragraphs 1 and 4 below</p>
<p>International application No. PCT/US2005/024706</p>	<p>International filing date (day/month/year) 08/07/2005</p>
<p>Applicant SCIENTIFIC-ATLANTA, INC.</p>	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders


Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90*bis*.1 and 90*bis*.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until **30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

<p>Name and mailing address of the International Searching Authority</p> <div style="text-align: center;">  </div> <p>European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016</p>	<p>Authorized officer</p> <p style="text-align: center; font-size: 1.2em;">Shantisaroop Pherai</p>
---	--

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference F-8024-PC	FOR FURTHER ACTION <small>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</small>	
International application No. PCT/US2005/024706	International filing date (day/month/year) 08/07/2005	(Earliest) Priority Date (day/month/year) 14/07/2004
Applicant SCIENTIFIC-ATLANTA, INC.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

4. With regard to the title,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the abstract,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 5a



as suggested by the applicant.



as selected by this Authority, because the applicant failed to suggest a figure.



as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

national Application No
PCT/US2005/024706

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04N5/76

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	EP 0 595 323 A (SONY CORPORATION) 4 May 1994 (1994-05-04) column 12, line 32 - line 49 column 13, line 26 - line 35 column 16, line 18 - line 47 column 17, line 20 - line 41 figures 5,8,10-13 -----	1,2,4,5, 7,9,10, 12,13,15 3,6,8, 11,14,16
A	US 5 329 309 A (DORRICOTT ET AL) 12 July 1994 (1994-07-12) the whole document -----	1-16
A	US 4 881 125 A (KRAUSE ET AL) 14 November 1989 (1989-11-14) the whole document -----	1-16

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

10 October 2005

Date of mailing of the international search report

18/10/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Braga, J

INTERNATIONAL SEARCH REPORT

Information on patent family members

national Application No

PCT/US2005/024706

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0595323	A	04-05-1994	AU 672238 B2	26-09-1996
			AU 5032293 A	12-05-1994
			DE 69327701 D1	02-03-2000
			DE 69327701 T2	21-06-2000
			DE 69332088 D1	08-08-2002
			DE 69332277 D1	10-10-2002
			JP 6153069 A	31-05-1994
			US 5485280 A	16-01-1996
US 5329309	A	12-07-1994	US 5337154 A	09-08-1994
US 4881125	A	14-11-1989	CA 2000693 A1	14-04-1990
			JP 2039785 C	28-03-1996
			JP 2199969 A	08-08-1990
			JP 7071219 B	31-07-1995
			KR 138111 B1	15-05-1998

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2005/024706

International filing date (day/month/year)
08.07.2005

Priority date (day/month/year)
14.07.2004

International Patent Classification (IPC) or both national classification and IPC
H04N5/76

Applicant
SCIENTIFIC-ATLANTA, INC.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl
Fax: +31 70 340 - 3016

Authorized Officer

Braga, J

Telephone No. +31 70 340-3866



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2005/024706

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2005/024706

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3,6,8,11,14,16
	No: Claims	1,2,4,7,9,10,12,13,15
Inventive step (IS)	Yes: Claims	3,6,8,11,14,16
	No: Claims	1,2,4,7,9,10,12,13,15
Industrial applicability (IA)	Yes: Claims	1-16
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V.

- 1 Reference is made to the following documents:

D1 : EP 0 595 323 A (SONY CORPORATION) 4 May 1994 (1994-05-04)

D2 : US 5 329 309 A (DORRICOTT ET AL) 12 July 1994 (1994-07-12)

D3 : US 4 881 125 A (KRAUSE ET AL) 14 November 1989 (1989-11-14)

2 INDEPENDENT CLAIM 1

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of **claim 1** is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parentheses applying to this document):

A method for displaying pictures (fig. 11) of a compressed video stream during playback mode operations, said method comprising the steps of:

receiving a compressed video stream (col. 17, lines 5-14; fig. 11, (40)) that includes frame pictures; and

detecting a scan mode indicator (col. 17, lines 24-30) in the compressed video stream, wherein the scan mode indicator indicates whether a progressive scan format was used during the creation of the frame pictures.

3 INDEPENDENT CLAIM 5

- 3.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of **claim 5** is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parentheses applying to this document):

A method for displaying pictures (fig. 11) of a compressed video stream during playback mode operations, said method comprising the steps of:

receiving a compressed video stream (col. 17, lines 5-14; fig. 11, (40)) that includes frame pictures;

detecting a scan mode flag in the compressed video stream (col. 17, lines 24-30) , wherein the scan mode flag indicates whether a progressive scan format was used during the creation of the frame pictures; and

responsive to detecting the scan mode flag (col. 17, lines 30-41), displaying both interlaced frames of an interlaced frame pair during a playback mode operation if the scan mode flag detected in the compressed video stream indicates that a progressive scan format was used during the creation of the frame pictures.

4 INDEPENDENT CLAIM 9

- 4.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of **claim 9** is not new in the sense of Article 33(2) PCT.
Document D1 discloses (the references in parentheses applying to this document):

A video decompression system (fig. 11, (40), (50)), comprising:

a memory (fig. 11, (43)) with logic; and

a processor (fig. 11, (46)) configured with the logic to receive a compressed video stream that includes frame pictures and detect a scan mode indicator in the compressed video stream, wherein the scan mode indicator indicates whether a progressive scan format was used during the creation of the frame pictures.

5 INDEPENDENT CLAIM 13

- 5.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of **claim 13** is not new in the sense of Article 33(2) PCT.
Document D1 discloses (the references in parentheses applying to this document):

A video decompression system (fig. 11, (40), (50)), comprising:

a memory with logic (fig. 11, (43)); and

a processor (fig. 11, (40)) configured with the logic to receive a compressed video stream that includes frame pictures, wherein the processor is further configured with the logic to detect a scan mode flag in the compressed video stream, wherein the scan mode flag indicates whether a progressive scan format was used during the creation of the frame pictures, wherein

the processor (fig. 11, (40)) is further configured with the logic to display both interlaced frames of an interlaced frame pair during a playback mode operation if the scan mode flag detected in the compressed video stream indicates that a progressive scan format was used during the creation of the frame pictures.

6 DEPENDENT CLAIMS 2, 4, 7, 10, 12, 15

Dependent claims 2, 4, 7, 10, 12, 15 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT) because their are either disclosed in D1 or obvious to the man skilled in the art.

7 DEPENDENT CLAIMS 3, 6, 11, 14

The combination of the features of dependent claims 3, 6, 11, 14 are neither known from, nor rendered obvious by, the available prior art. The reasons are as follows:

- a) the additional features of **claim 3** are not disclosed nor made obvious by any of discloses in D1, D2 and D3;
- b) **claim 6** is a method claim corresponding to the apparatus claim 3. The same reasoning as in 7(a) applies, *mutatis mutandis*, to claim 6;

- c) **claim 11** is an apparatus claim corresponding to the apparatus claim 3. The same reasoning as in 7(a) applies, *mutatis mutandis*, to claim 11;
- d) **claim 14** is an apparatus claim corresponding to the apparatus claim 3. The same reasoning as in 7(a) applies, *mutatis mutandis*, to claim 14;

8 INDEPENDENT CLAIM 8

- 8.1 Document D1, which is considered to represent the most relevant state of the art, discloses (the references in parentheses applying to this document):

A method for displaying pictures (fig. 11) of a compressed video stream during playback mode operations, said method comprising the steps of:

receiving a compressed video stream (col. 17, lines 5-14; fig. 11, (40)) that includes frame pictures;

detecting a scan mode indicator (col. 17, lines 24-30) in the compressed video stream, wherein the scan mode indicator indicates whether a progressive scan format was used during the creation of the frame pictures, wherein the scan mode indicator includes a flag in a picture sequence header; and

displaying (col. 17, lines 30-41) both interlaced frames of an interlaced frame pair during a playback mode operation if the scan mode indicator detected in the compressed video stream indicates that a progressive scan format was used during the creation of the frame pictures,

From this, the subject-matter of independent **claim 8** differs in that:

If the scan mode indicator indicates that a progressive scan format was not used during the creation of the frame pictures displaying only one of two interlaced frames of an interlaced frame pair.

- 8.1.1 The subject-matter of claim 8 is therefore novel (Article 33(2) PCT)
The problem to be solved by the present invention may be regarded as "how to efficiently display an interlaced picture".
- 8.1.2 The solution to this problem proposed in claim 8 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:
Documents D1, D2 and D3 do not disclosed the claimed solution, nor any combination of the teachings therein would not enable the skilled person to arrive to the claimed solution.

9 INDEPENDENT CLAIM 16

- 9.1 Document D1, which is considered to represent the most relevant state of the art, discloses (the references in parentheses applying to this document):

Independent **apparatus claim 16** is corresponding to the **method claim 8**. The reasons as put forward in paragraph 8 above apply, *mutatis mutandis*, to claim 16.

Re Item VIII.

- 1 **Claims 5 and 8** comprise all the features of **claim 1** and are therefore not appropriately formulated as dependent on the latter (Rule 6.4 PCT). Claims 1, 5 and 8 therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.
- 1.1 Notwithstanding, **claims 13 and 16** comprise all the features of **claim 9** and are therefore not appropriately formulated as dependent on the latter (Rule 6.4 PCT). Claims 9, 13 and 16 therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2005/024706
